

REMARKS

1. In response to the Office Action mailed April 8, 2004, Applicants respectfully request reconsideration. Claims 1-44 were originally presented for examination in this application. All claims were rejected in the outstanding office action. By the foregoing Amendments, claims 16, 17, 18, 19, 21 and 24 have been amended. No claims have been canceled or added. Thus, upon entry of this paper, claims 1-44 will be pending in this application. Based on the above Amendments and following Remarks, Applicants respectfully request that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

Claim Interpretation

2. In the prior office action (dated August 15, 2003) the Examiner contended that Blevins rendered obvious all pending claims, noting that a number of recited terms were not defined in the claims and, therefore, assigned a scope that included unrelated terms in Blevins. Applicants argued in reply (filed January 8, 2004) that the claim terms should be interpreted in light of the specification since the terms are defined in the specification. In reply (the current Office Action), the Examiner notes that limitations found in the specification cannot be read into the claims, referring the policy of broadly interpreting the claims during prosecution to reduce the possibility that a claim, when issued, will be interpreted more broadly than is justified. (*See*, Office Action, pg. 2, para. 2.)

3. However, the Examiner has failed to apply the above policy to the pending claims and arguments, leaving unspecified those limitation(s) the Examiner believes Applicants are attempting to read into the claims. Applicants also note that in the last reply Applicants did not propose any interpretation of the claims, but rather simply directed the Examiner to the specification to obtain the definitions of the disputed terms. (*See*, December 15, 2003 Amendment, para. 6.) Thus, while Applicants appreciate and acknowledge the policy considerations driving claim interpretation during prosecution as compared with enforcement, the Examiner's failure to make any assertion regarding the interpretation of any specific claim term based on such policies and case holdings

prevents Applicants from addressing the Examiner's concerns by either accommodation or traversal.

Rejections Under 35 Under U.S.C. §103(a)

4. Claims 1-19 and 29-38 have been rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,594,858 to Blevins (hereinafter "Blevins") in view of U.S. Patent No. 6,229,911 to Balaban *et al.* (hereinafter "Balaban"). Specifically, the Examiner asserts that Blevins substantially teaches Applicants' invention as recited in independent claims 1 and 29. The Examiner acknowledges, however, that Blevins fails to teach "providing one or more identifier[s] related to the use of the probe array used to acquire the biological information." The Examiner goes on to assert that Blevins "teaches data prompts are the identifiers related to the project," directing Applicants to column 10, lines 1-5 of Blevins: "the selection portion 224 provides a list of data prompts related to processes associated with the particular project that may be selected by a user to create[] the unique control template or modify an existing control template."

5. The Examiner then turns to Balaban, asserting that Balaban teaches "creating the template for the experiment" and "the use of the probe array to obtain gene sequences." For the former contention, the Examiner cites column 7, lines 56-61: "a template type associated with each protocol template indicates that kind template. The template type identifies, for example, whether the template identifies parameters for experiments, for analysis or for target preparation." For the latter contention, the Examiner cites column 12, lines 11-55 of Balaban: "an analysis ID column identifies the analysis as listed in analysis table 438 that produced the relative gene expression result ... A positive pairs ratio column lists the ratio of the numbers of positive probe pair between two targets."

6. Based on the above, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made "to modify the probe array to obtain the gene expression into Blevins in order to create template and use the probe array to obtain gene expression to conduct the biological experiment." Applicants respectfully traverse these rejections.

7. Blevins is directed to process monitoring and control systems and, in particular, to a system for creating control templates that have attributes, methods, and graphical views associated therewith that can be selected by a user to design process control solutions and from which a user can create a unique display of a view such as an engineer's view, operator's view, controller's view, and the like. (*See*, Blevins, col. 1, lns. 16-26.) Process control as defined in Blevins “involves the use of instruments, control devices and systems for measuring and manipulating control elements such as valves to maintain one or more process variables, such as temperature, pressure and flow, at target values selected to achieve a desired objective of a process including the ... operation of machines and equipment utilized in the process. Process control systems have widespread application in the automation of industrial processes such as those used in chemical, petroleum, and manufacturing industries, for example.” (*See*, Blevins, col, 1, lns. 29-39.)

8. Each of the engineers, maintenance personnel, operators, lab personnel and the like, require a graphical view of the elements of the process control system that enables them to view the system in terms relevant to their responsibilities. (*See*, Blevins, col, 2, lns. 14-17.) For example, to control a specific process control function an engineer uses an engineer's view of the process to adjust parameters used by implementing microprocessor-based controllers. (*See*, Blevins, col, 1, lns. 40-56.) Software programs are also used to provide feedback in the form of an operator's display or view regarding the status of particular processes, to signal an alarm when a problem occurs, or to provide instructions or suggestions to an operator when a problem occurs. The operator who is responsible for the control process needs to view the process from that person's point of view. This is because systems that perform, monitor, control, and feedback functions in process control environments are typically implemented by software written in high-level computer programming languages that are not usually used or understood by process engineers, maintenance engineers, control engineers, operators and supervisors. Higher level graphical display languages have been developed for such personnel, such as continuous function block and ladder logic. (*See*, Blevins, col, 2, lns. 3-14.)

9. One problem noted in Blevins is that then-conventional systems allow only the equipment manufacturer to create his/her own control functions, along with associated

graphical views, or modify the predefined functions within the provided library. Blevins observed that there is a need for a uniform or universal design environment that can easily be used, not only by a designer or manufacturer but also a user, to customize an existing solution to meet his/her specific needs for developing process control functions. (See, Blevins, col, 3, lns. 10-34.)

10. Turning now to the specific assertions regarding the teachings of Blevins, the Examiner asserts, as noted, that Blevins teaches “receiving a specification of an attribute for at least one of the one or more identifiers” as claimed. The recited “one or more identifiers” is preceded by the word “the,” referring to the prior introduction of the term “one or more identifiers” in Applicants’ claim. This is found in the prior element of claim 1, in which the “one or more identifiers” are claimed to be “related to the use of a probe array used to acquire the biological information.” Thus, the claim term should be read as “*receiving a specification of an attribute for at least one of the one or more identifiers related to the use of a probe array used to acquire the biological information.*” Blevins neither discloses, teaches nor suggests receiving a specification of an attribute for [an] identifier related to the use of a probe array used to acquire biological information. Rather, Blevins is directed to creating control templates that have attributes, methods, and graphical views associated therewith that can be selected by a user to generate design process control solutions and from which a user can create a unique display of a view such as an engineer's view, operator's view, controller's view, and the like, as noted above.

11. The Examiner also asserts that Blevins teaches “... generating a data template including at least one of the one or more identifiers, wherein the data template is configured to receive a value for each at least one identifier, said value representing the attribute specified for that identifier for the biological experiment ...” as recited in Applicants’ claim 1. For the reasons noted above, Blevins fails to teach or suggest providing a data template configured to receive Applicants’ identifiers as claimed. In addition, this element of claim 1 explicitly recites that the values received by the data template represent an attribute “specified for that identifier for the biological experiment ...” (emphasis added). Since Blevins teaches only creating user-type-specific control templates for process monitoring and control systems, and neither teaches nor suggests

managing information, particularly biological information, Applicants respectfully submit that Blevins also fails to teach this element of Applicants' claimed invention.

12. Finally, the Examiner asserts that Blevins teaches "... receiving by the data template a value for the at least one identifier in accordance with the attribute specified for the identifier ..." as claimed. This assertion is also misplaced. Blevins fails to disclose, teach or suggest receiving a value for any identifier in accordance with an attribute specified for that identifier. Furthermore, for the reasons noted above, the recited identifiers and attributes are nowhere taught nor suggested in Blevins.

13. Thus, for at least the reasons noted above, Applicants respectfully assert that, contrary to the Examiner's assertions, Blevins fails to teach those features of Applicants' claimed invention alleged by the Examiner. For at least this reason, Applicants respectfully assert that the Examiner has failed to support the Section 103 rejection of independent claim 1.

14. Furthermore, there is no teaching or suggestion in the art of record to combine Blevins and Balaban as proposed by the Examiner. There is no motivation to combine the bioinformatics database teachings of Balaban with the teachings regarding control templates for process monitoring and control systems as taught by Blevins. The rationale for such a combination provided by the Examiner is that one would be motivated to "create [a] template and use the probe array to obtain the gene expression to conduct the biological experiment." This rationale is unclear, conclusory and unsupported by the art of record. Blevins, as noted, teaches providing user-specific views of a process monitoring and control system, not templates as alleged by the Examiner, and certainly not as recited in Applicants' claims. Balaban teaches nothing more than a database for bioinformatics data. That is, there is no motivation to combine these references, let alone combine them in the manner proposed. There is no suggestion to provide in Blevins a database as taught in Balaban, nor is there any suggestion to provide the user-specific view of Blevins in the database of Balaban. Accordingly, Applicants' respectfully assert that for at least these reasons the Section 103 rejection of Applicants' independent claims should be reconsidered and withdrawn.

15. Thus, for at least the reasons set out above, the only conclusion that can be drawn, based on the record of this application, is that the suggestion forming the basis for the Examiner's otherwise factually unsupported conclusion must have come from Applicants' own novel disclosure; that is, they are based on impermissible hindsight. It is too well settled for citation that Applicants' own novel disclosure cannot be used to supply the teaching or suggestion that is missing from the known art.

16. In addition, even if the references were to be combined as proposed by the Examiner, the resulting combination would fail to contain Applicants' invention as recited in Applicants' independent claims. Balaban, which teaches a database for organizing bioinformatics data, does not teach that which is missing from Blevins. Specifically, Balaban neither discloses, teaches nor suggests any of the following limitations of Applicants' claimed method for managing biological information related to a biological experiment: "...providing one or more identifiers related to the use of a probe array used to acquire the biological information; receiving a specification of an attribute for at least one of the one or more identifiers; generating a data template including at least one of the one or more identifiers, wherein the data template is configured to receive a value for each at least one identifier, said value representing the attribute specified for that identifier for the biological experiment; and receiving by the data template a value for the at least one identifier in accordance with the attribute specified for the identifier." Thus, any combination of Blevins and Balaban would fail to include all the elements of Applicants' invention as recited in Applicants' independent claims. Accordingly, Applicants respectfully assert that Applicants' independent claims are patentable over the Blevins taken alone or in combination with Balaban.


17. For at least the above reasons, Applicants respectfully request that the Section 103 rejection of independent claims 1, 20 and 29 be reconsidered and withdrawn.

18. The dependent claims depend directly or indirectly from their respective base claim and are allowable for at least the same reasons as those noted above. Further, Applicants submit that each of these dependent claims are also patentable in and of themselves because they each recite features that are not anticipated nor rendered obvious by the art of record.

Conclusions

19. In view of the foregoing Amendments, this application should now be in condition for allowance. A notice to this effect is respectfully requested.

Respectfully submitted,



Michael G. Verga
Reg. No. 39,410

JAGTIANI + GUTTAG
Democracy Square Business Center
10363-A Democracy Lane
Fairfax, Virginia 22030
703-591-2664

July 8, 2004